Green Spaces Inventory
Teacher Reference

Green Spaces – General Section

The purpose of this inventory is to give students an overview of how the green spaces around their school are generally used and maintained.

	Inventory Questions	Ideas for School Improvement	Resources	Connections to KY Academic Standards
1.	Who is responsible for maintaining the school grounds?	Create a seasonal log to track changes around your school. Put it on a website to share with schools in other areas of the state. Start a phenology log. Assign a student per each school day of each month to observe the outdoors and record at least one observation. At the end of the year design a calendar based on the log for the next year's students. Create a feature on your school grounds that will attract wildlife. Devise and implement a plan to increase the biodiversity around your school. Review the Southeast Exotic Pest Plant Council Web site and determine if any of the plants are growing near your school. Make a list of the top 5 and talk to grounds maintenance staff about removing them. Make a map of the area around your school. Highlight areas you believe have educational value. Annotate the map with descriptions of the	Kentucky Bluebird Society http://www.biology.eku.edu/kbs/default.html Wild Ones Natural Landscapes http://www.for-wild.org/ Kentucky chapter of Wild Ones http://www.for-wild.org/chapters.html Developing Outdoor Learning Areas—A Kentucky Guide http://www.state.ky.us/agencies/envred/DevelopingOutdoorLearning.pdf Guide to Creating, Using, and Maintaining Outdoor Classrooms http://keec.ky.gov/Outdoor%20classroom%20guide.pdf. Schoolyard Habitat Guide http://www.jefferson.k12.ky.us/Departments/EnvironmentalEd/SchoolyardHabGd/schoolydhabgd.html Kentucky Ornithological Society http://www.biology.eku.edu/kos/default.htm Fish and Wildlife Backyard Habitat Program http://fw.ky.gov/navigation.asp?cid=229&NavPath=C130C174 Journey North—A global study of wildlife migration and seasonal change. http://www.learner.org/jnorth/ Learn about starting a phenology log http://www.naturenet.com/earthalive/mmsd/phenology.asp Kentucky Climate Center resources http://kyclim.wku.edu/ Southeast Exotic Pest Plant Council—view pictures of common invasive weeds in the southeast. http://www.se-eppc.org/weeds.cfm	Primary SC-EP-4.7.1 Students will describe the cause and effect relationships existing between organisms and their environments. The world has many different environments. Organisms require an environment in which their needs can be met. When the environment changes some plants and animals survive and reproduce and others die or move to new locations. DOK 2 Fourth Grade SC-04-4.7.1 Students will make predictions and/or inferences based on patterns of evidence related to the survival and reproductive success of organisms in particular environments. The world has many different environments. Distinct environments support the lives of different types of organisms. When the environment changes some plants and animals survive and reproduce and others die or move to new locations. Examples of environmental changes resulting in either increase or decrease in numbers of a particular organism should be explored in order to discover patterns and resulting cause and effect relationships between organisms and their environments (e.g., structures and behaviors that make an organism suited to a particular environment). Connections and conclusions should be made based on the data. DOK 3 SS-04-4.1.1 Students will use geographic tools (e.g., maps, charts, graphs) to identify and describe natural resources and other physical characteristics (e.g., major landforms, major bodies of water, weather, climate, roads, bridges) in regions of Kentucky and the United States. DOK 2 Fifth Grade SC-05-4.7.1 Students will: • describe and categorize populations of organisms according to the function they serve in an ecosystem (e.g., producers, consumers, decomposers); • draw conclusions about the effects of changes to populations in an ecosystem. Populations of organisms can be categorized by the function they serve in an ecosystem. Plants and some microorganisms are producers because they make their own food. All animals, including humans, are consumers, and obtain their food by eating
2.	How much class time is spent outdoors on the school grounds?			
3.	Does anyone at your school keep a log of seasonal changes (e.g., weather patterns, flowers blooming, wildlife behavior) occurring on your school grounds? Yes ☐ No ☐ Please explain:			
4.	Does your school have any of the following features to attract wildlife? A. Bat or bird houses Yes ☐ No ☐ B. Feeders Yes ☐ No ☐ C. Water Yes ☐ No ☐ D. Butterfly Gardens Yes ☐ No ☐ E. Natural habitat areas Yes ☐ No ☐ F. Other (please explain) _____			
5.	Are any plants or animals found on the school grounds considered undesirable or "nuisances?" Yes ☐ No ☐ Please explain:			
6.	Are any plants or animals found on the school grounds native to Kentucky? Yes ☐ No ☐ Please explain:			

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7.	How would you rate* the biodiversity on the school grounds? *High – greater than 100 different species of visible plant or animal life ☐ Medium – 40 to 99 different species of small plants and insects mostly; few vertebrate or tree species live or visit the grounds ☐ Low – less than 40 different species; little variety of plant and animal life ☐	sites you have highlighted. Print copies and share with teachers at your school. As a class or in groups, create a large map of your county. Include rivers, creeks, caves, natural areas and national forests or parks in your county. Put your school on the map to see how close you are to these places.		other organisms. Decomposers, primarily bacteria and fungi, are consumers that use waste materials and dead organisms for food. Food webs identify the relationships among producers, consumers and decomposers in an ecosystem. Using data gained from observing interacting components within an ecosystem, the effects of changes can be predicted. DOK 3 SS-05-4.1.1 Students will use geographic tools (e.g., maps, charts, graphs) to identify natural resources and other physical characteristics (e.g., major landforms, major bodies of water, weather, climate, roads, bridges) and analyze patterns of movement and settlement in the United States. DOK 3 Sixth Grade SS-06-4.1.1 Students will use a variety of geographic tools (maps, photographs, charts, graphs, databases, satellite images) to interpret patterns and locations on Earth's surface in the present day. DOK 3 SC-06-4.7.1 Students will describe the consequences of change in one or more abiotic factors on a population within an ecosystem. The number of organisms an ecosystem can support depends on the resources available and abiotic factors (e.g., quantity of light and water, range of temperatures, soil composition). DOK 2 Seventh Grade SC-07-4.7.1 Students will compare abiotic and biotic factors in an ecosystem in order to explain consequences of change in one or more factors. The number of organisms an ecosystem can support depends on the resources available and abiotic factors (e.g., quantity of light and water, range of temperatures, soil composition). Given adequate biotic and abiotic resources and no diseases or predators, populations (including humans) increase at rapid rates. Lack of resources and other factors, such as predation and climate, limit the growth of populations in specific niches in the ecosystem. DOK 3 Eighth Grade SC-08-4.7.1 Students will describe the interrelationships and interdependencies within an ecosystem and predict the effects of change on one or more components within an ecosystem.
8.	What type of land borders your school (e.g., residential, agricultural, natural areas such as rivers or forests, commercial, industrial)? Please list all by compass direction. A. North B. East C. South D. West			
9.	What other nearby "green spaces" are suitable for educational purposes (e.g., community park two blocks away, green belt along the river within walking distance of school property, non-profit historical farm located a 5-mile bus trip away, permission from the landowner to use the vacant lot next door)?			
10.	How are field studies or related outdoor classroom topics incorporated into each grade's curriculum?			
11.	Do students at your school have access to a map of the school grounds? What type of information is included in the map (ex: topographic lines, land use, land cover, water bodies, etc) Yes ☐ No ☐ Please explain:			

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12.	What areas are used during the time spent outside on the school grounds (*i.e. playground, athletic fields, courtyard, garden, etc*)?			Organisms both cooperate and compete in ecosystems. Often changes in one component of an ecosystem will have effects on the entire system that are difficult to predict. The interrelationships and interdependencies of these organisms may generate ecosystems that are stable for hundreds or thousands of years. DOK 3 High School SC-HS-4.7.1 Students will: • analyze relationships and interactions among organisms in ecosystems; • predict the effects on other organisms of changes to one or more components of the ecosystem. Organisms both cooperate and compete in ecosystems. Often changes in one component of an ecosystem will have effects on the entire system that are difficult to predict. The interrelationships and interdependencies of these organisms may generate ecosystems that are stable for hundreds or thousands of years. DOK 3
13.	Does your school have large shade trees that help control the seasonal temperature of your school building? If so, what kind of trees are present? Yes ☐ No ☐ Please explain:			
14.	Are there any areas that flood or have drainage problems when it rains at your school? Yes ☐ No ☐			
15.	Approximately what percent of your outdoor school grounds is impervious surface (paved) and what percent of your school grounds is vegetated (grass, trees, shrubs, etc)? Impervious Surface % Vegetation %			SS-HS-4.1.1 Students will use a variety of geographic tools (e.g., maps, globes, photographs, models, satellite images, charts, graphs, databases) to explain and analyze the reasons for the distribution of physical and human features on Earth's surface. DOK 3
16.	Does your school have an outdoor classroom? If so, who uses it and how often is it used? Yes ☐ No ☐ Please explain:			
17.	If your school does not have an area outside designated as an outdoor classroom, please tell us about any available space that could be used for the development of an outdoor classroom?			
18.	What educational features does your outdoor classroom have? (ex: wetlands, wildlife garden, vegetable garden, native tree stand, animal track box, etc)			

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19.	Who conducted the Green Spaces Inventory (e.g., Mrs. Wood's fourth grade class with help from Mr. Turf, maintenance worker, local Home Depot store, and the local natural resources conservation district)?			